

- AKC*
C. 101
13. The repair material according to claim 1, comprising a kit of pieces of repair material wherein the kit comprises a plurality of differently coloured pieces of repair material.
-

AN

[**IN THE CLAIMS ADD**]

14. The repair material as in claim 1, wherein the deformable layer comprises a bonding material interconnecting the microcapsules that can be evaporated or decomposed.
-

REMARKS

As a clerical matter, the Examiner has noted that an abstract of the disclosure is missing from the present specification. Applicant has added an abstract above on a new page 11, consisting of the abstract disclosure from the PCT Publication from which the present application depends. Accordingly, Applicant submits that the inclusion of this abstract introduces no new matter to the specification, and respectfully requests entry of the additional abstract page.

The Examiner initially rejected Claims 1-13 of the specification under 35 U.S.C. §112, second paragraph, based on the contention that they are indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner has noted a number of different informalities with the language of the claims. Applicant has amended the claims above so as to better place those claims in proper language format. Therefore, Applicant submits that the Examiner's rejections have now been overcome.

Additionally, the Examiner has objected to the specification under 35 U.S.C. §112, first paragraph, as failing to contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise and exact terms as to enable any

person skilled in the art to make and use the invention. The Examiner has objected to portions of the disclosure as failing to disclose parameters regarding the properties or the chemical structures of the microcapsules and/or bonding agents. Accordingly, the Examiner has rejected Claims 4-7 under 35 U.S.C. §112, first paragraph. Additionally, the Examiner has objected to portions of the specification as including specific references to the claim numbers. Applicant has amended the specification to remove any specific reference to the claims, but traverses the Examiner's contention that the specification is non-enabling relative to the microcapsules and bonding agent. The traversal will be explained in more detail below.

The Examiner contends that the microcapsules and/or bonding agents are not disclosed with sufficient specificity within the specification. On Page 5, Lines 32-35 of the specification, it is disclosed that the walls of the microcapsules may be made from a material that evaporates and/or decomposes under the influence of heat. In the context of the present invention, the microcapsules "decompose" or "evaporate," meaning that the wall material is changed by exposure to heat such that the contents of the microcapsules become free. Such materials are, in fact, well known in the art of microcapsules. To that end, Applicant includes herein pages 18 to 21 of the book "Microcapsule Processing and Technology," written by Mr. Asaji Kondo.

Microcapsule Processing and Technology, A. Kondo, Marcel Dekker, Inc., New York, New York (1979). As can be seen on Pages 19 and 20 of that reference, commonly employed wall materials are enumerated. Particularly, the first two lines of Page 20 disclose waxes that evaporate or decompose under the influence of heat. From such a reference, as an example, it is clear that one of ordinary skill in the microcapsule arts knows such materials exist, and does not need any specific teachings relative to those materials.

As for the bonding agent, Page 5, Lines 32 to 35 of the present specification also discuss that element. As with the above, the materials disclosed in the Kondo book can also comprise bonding agents as that term is used in the present specification. As such, those materials are also within the scope of knowledge of one of ordinary skill in the art. Therefore, Applicant submits that the present specification in fact does include an enabling disclosure relative to the microcapsules and bonding agents, and respectfully requests that the Examiner withdraw the present objection.

The Examiner has rejected Claims 1-3 under 35 U.S.C. §102(b), based on the contention that they are anticipated by one of U.S. Patent No. 5,254,192, issued to Speakman (Speakman '192), or U.S. Patent No. 5,287,304, issued to Berner et al (Berner '304). Applicant respectfully traverses the Examiner's rejection. Solely to expedite the prosecution of the application, however, Applicant has amended Claim 1 to better clarify the invention. Specifically, Applicant has added the substance of Claims 4 and 6 to Claim 1, and deleted Claims 2 and 4 to 6. Because the amended Claim 1 now contains the limitations of Claims 4 and 6, Applicant submits that it should now read over Speakman '192 and Berner '304.

The Examiner also rejected Claims 4 and 6, along with Claims 5 and 7-13, based on the contention that those claims are unpatentable over either Speakman '192 or Berner '304. The Examiner states that it is his own belief that the presence of microcapsules containing paint elements is a parameter well within the ordinary skill of the art versed in the utilization of paint. Applicant submits that the Examiner's contentions are based on subjective opinions, and are based on hindsight. Although the use of microcapsules is known generally, no references incorporate such structures into a repair material as claimed in the present invention. Further, no references even suggest such a combination of structures. Absent such a suggestion, Applicant

submits that the Examiner's contentions based on his own belief are inappropriate, and respectfully requests that the Examiner withdraw the rejection.

The Examiner additionally contends that U.S. Patent No. 5,741,591, issued to Tashiro et al ("Tashiro '591"), discloses paint containing microcapsules using encapsulating pigments to form a product having an outer surface that exhibits a highly attractive, superhigh-gloss surface (See, e.g., Tashiro '591, Col. 2, Lines 19-27, Col. 2, Lines 50-67). The Examiner appears to be suggesting that Tashiro '591, when combined with Speakman '192 or Berner '304 suggests the present invention as now claimed in Claim 1. Speakman '192 and Berner '304, however, do not disclose the present invention as claimed, and Tashiro '591 fails to show microcapsules as in the present invention. Thus, even if those references could be combined, they would still not show the present invention as claimed in Claim 1.

Speakman '192 and Berner '304 disclose a repair material which comprises a flexible plastic material or carrier film, respectively, which material or film is coated on one side with paint and on the other side with an adhesive. Without any doubt, a bonding agent, if present, would be part of the paint coating and not part of the plastic material or carrier film. This configuration is distinct from the present Claim 1 as claimed, in which only the bonding agent (deformable layer) is present as a carrier for the microcapsules, and not a plastic material or carrier film.

Furthermore, the paint containing "microcapsules" of Tashiro '591 are not true microcapsules. Tashiro '591 does not consist of a wall, inside of which totally different materials are encapsulated, but instead Tashiro '591 discloses a self-dispersing resin (i.e. a binder for the pigment) and a pigment. The self-dispersing resin does not merely form the outer wall of the "microcapsules," but intermingles with the pigment throughout the capsule, with an

increasing concentration of pigment from the outside to the inside of the capsule. (Tashiro '591, Col. 5, Line 64-Col 6, Line 12). This structure is again contrary to the present invention, which has a wall material that is a completely different material from the encapsulated powdered paint. Thus, neither Speakman '192, Berner '304, nor Tashiro '591 discloses the present invention as claimed, either alone or in combination with one another.

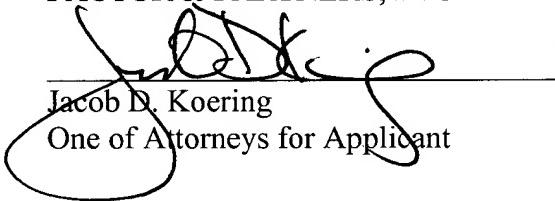
In addition to the above, Applicant has added Claim 14, which was previously disclosed on Lines 21 to 27 of Page 5 of the specification. Therefore, Applicant submits that Claim 14 introduces no new subject matter to the present application.

Based on the above, Applicant submits that Claims 1, 3, and 7-14 should now be in condition for allowance as written. Therefore, reconsideration and passage to allowance of Claims 1, 3, and 7-14 is respectfully requested.

Should anything further be required, a telephone call to the undersigned, at (312) 226-1818, is respectfully invited.

Respectfully submitted,

FACTOR & PARTNERS, LLC


Jacob D. Koering
One of Attorneys for Applicant

Dated: January 28, 2003

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on January 28, 2003.

Jacob D. Koering

AMENDMENTS TO THE SPECIFICATION WITH MARKINGS TO SHOW CHANGES

Please delete the paragraph at Page 2, Line 4, and insert instead:

-- Layers of paint material, such as are indicated in [claim 2] the claims, can be produced in a particularly simple manner by applying liquid synthetic-resin paint to a substrate and surface drying the paint. --

Please delete the paragraph at Page 2, Line 9, and insert instead:

-- If the surface dried layer of paint remains, until utilised in service, on a deformable substrate, as is indicated in [claim 3] the claims, the repair material is distinguished by particularly satisfactory mechanical strength. --

Please delete the paragraph at Page 2, Line 14, and insert instead:

-- The further development of the invention according to [claim 4] the claims guarantees still greater deformability of the repair material, since a coherent layer of paint is not yet present in it at all. Nevertheless, the microcapsules guarantee homogeneous distribution of the paint material over the repair material, and such proximity of the individual small volumes of paint that the paint material runs together, when released and optionally heated up, and forms a smooth reflecting surface. --

Please delete the paragraph at Page 2, Line 24, and insert instead:

-- What is achieved with the aid of the invention in accordance with [claim 5] the claims is that, after that bonding of the paint material with the layer of paint to be repaired which takes place under the action of heat, only the paint material is left on the repair area. --

Please delete the paragraph at Page 2, Line 30, and insert instead:

-- If particles of powder paint are put into the microcapsules in accordance with [claim 6] the claims, in the first place the said particles form, after being melted down and cooled again, a layer of paint which is just as capable of being subjected to mechanical loads as the original paint. Furthermore, the paint bonds particularly well with the material lying underneath it. --

Please delete the paragraph at Page 3, Line 1, and insert instead:

-- A repair material such as is indicated in [claim 7] the claims needs no separate adhesive. It is also possible to simply lay the repair material on the repair area which has been heated up beforehand, where it is then fixed by the partial melting of the microcapsules.

Please delete the paragraph at Page 3, Line 7, and insert instead:

-- The further development of the invention in accordance with [claim 8] the claims is of advantage with a view of the cost-effective manufacture of smaller pieces of repair material starting from large sheets or preferably webs of the said repair material. --

Please delete the paragraph at Page 3, Line 13, and insert instead:

-- What is achieved with the aid of the further development of the invention in accordance with [claim 9] the claims is that the user has available, in a ready-prepared manner, pieces of repair material of different geometry and different size, that is to say, does not have to cut the repair material himself. Cutting of the repair material by the user might lead to irregularities at the edges. --

Please delete the paragraph at Page 3, Line 21, and insert instead:

-- The further development of the invention in accordance with [claim 10] the claims permits adaptation of the colour of the repair material to paint which has become darker. --

Please delete the paragraph at Page 3, Line 25, and insert instead:

-- In that connection, the advantage is achieved, with the aid of the further development of the invention in accordance with [claim 11] the claims, that adaptation to the subsequent darkening can still be carried out the user. --

Please delete the paragraph at Page 3, Line 30, and insert instead:

-- This can be effected in a particularly simple manner in accordance with [claim 12] the claims, through the fact that the user picks out, from a plurality of grey layers, the one which matches best. --

Please delete the paragraph at Page 4, Line 8, and insert instead:

-- The further development of the invention in accordance with [claim 13] the claims makes it possible to keep a supply of only a single kit of repair material, with the aid of which it is then possible to cover a manufacture's entire range of colours (optionally for a certain model only). This facilitates stock-keeping, particularly at the final vendor's premises. --

AMENDED CLAIMS WITH MARKINGS TO SHOW CHANGES

1. A [R]repair material for a layer of paint[, characterised in that it has] comprising a deformable layer [(12; 18)] of paint material[, and also has] and an adhesive [(14; 26) for the, at least temporary, attachment of the deformable layer (12; 18) of paint material to the repair area] for one of removably or permanently attaching the deformable layer at a repair area, said deformable layer comprising microcapsules containing powdered paint particles, wherein the microcapsules comprise a wall material that can be evaporated or decomposed.
3. The [R]repair material according to claim 1, [characterised in that] wherein the deformable layer [(12) of paint material] is carried by a deformable base layer [(10)].
7. The [R]repair material according to claim 1, [characterised in that] wherein the adhesive comprises the deformable layer, at least a portion of which changes into a sticky condition upon the application of heat[is formed by the fact that the layer (18) of paint material changes, at least partially, into the sticky condition when heated up].
8. The [R]repair material according to claim 1, wherein the repair material comprises [characterised in that it is available in the form of] at least one punched-out piece of material.
14. The [R]repair material according to claim 8, wherein the repair material comprises two or more punched-out pieces of material of different geometries, such that the two or more punched-out pieces together form a kit [charaterised in that it is available in the form of a kit of punched-out pieces of material of different geometry].
15. The [R]repair material according to claim 1, [characterised in that it has a] wherein the repair material comprises at least one grey-coloured layer [(28)].

16. The [R]repair material according to claim 10, [characterised in that] wherein the grey-coloured layer [(28)] is a separate piece of material from the deformable layer, [provided with a] the grey-coloured layer additionally including a layer of adhesive [(30)] via which it can be attached to the deformable layer [(12; 18) of paint material].
17. The repair material according to claim 11, wherein the grey-coloured layer and the deformable layer comprise a kit of repair pieces, [Kit of pieces of repair material according to claim 11, characterised in that it comprises] wherein the kit includes a plurality of grey layers [(30)] which have different grey values.
18. The repair material according to claim 1, comprising a [K]kit of pieces of repair material [according to 1, characterised in that it] wherein the kit comprises a plurality of differently coloured pieces of repair material.